

State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

1992
Year of Revision

Anadromous Water Catalog Volume Region I
USGS Quad Juneau B-2
Name of Waterway AUKE CREEK/LAKE
Anadromous Water Catalog Number of Waterway _____

ALASKA DEPT. OF
FISH & GAME

MAY 16 1991

REGION II
HABITAT DIVISION

For Office Use

Nomination # <u>92 001</u>	
<u>Richard Reed</u> Regional Supervisor	<u>5/15/91</u> Date
<u>ED Wren</u>	<u>2/20/92</u>
<u>FI</u> Drafted	<u>2/12/92</u> Date

Change to ☒ Atlas
 ☐ Catalog
 ☐ Both
Addition ☒
Deletion ☐
Correction ☐
Name addition:
USGS name _____
Local name _____

Species	Date(s) Observed	Spawning	Rearing	Migration
<u>Oncorhynchus mykiss</u> <u>(Steelhead)</u>	<u>May 1989</u>			<u>Upstream (adult)</u>
	<u>May-June 1989, 90</u>			<u>Downstream (smolt)</u>

Comments: Provide any clarifying information, including number of fish observed, location of fish survey data, etc.

- Attached -

Attach a copy of a map showing location of mouth and upper points of each species, specific stream reaches identified for spawning or rearing, locations of barriers, such as falls. Attach a copy of the fish survey data, if available.

Name of Observer (please print) Kristen M. Munk
Date: Apr. 19, 1991 Signature: [Signature]
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Signature of Area Biologist: Jane Hall Schenpf

OBSERVER COMMENTS REGARDING ATTEMPTED UPSTREAM MIGRATION BY ADULT STEELHEAD, CUTTHROAT TROUT, AND DOLLY VARDEN, AND DOWNSTREAM MIGRATION BY STEELHEAD SMOLTS, AT THE AUKE CREEK SMOLT WEIR SITE.

The Auke Creek Smolt Weir is a 100% barrier to upstream migrating fish during its operation, generally March 1 - June 30. In this time period, "spring spawners" make their way up Juneau area creeks to spawn. In the past, no springtime upstream migration was identified in the Auke Lake system (this assumption is based upon the current presence of the barrier smolt weir). In 1989 and 1990, cutthroat trout and adult steelhead were identified migrating upstream in this window.

This oversight was realized when a temporary weir structure was placed downstream of the Auke Creek Smolt Weir in 1989, from May 3-June 12. This action identified attempts at upstream migration by adult steelhead, adult cutthroat trout (prior Auke Creek downstream migrators and migrators from other systems), and Dolly Varden char.

One ripe female steelhead was captured at this weir. Seven adult cutthroat were captured, five of which had been handled through the Auke Creek Smolt Weir earlier (hole-punched in the caudal fin for identification), and two of which had arrived from other over-wintering systems. Five Dolly Varden were captured, however it could not be confirmed if they were from other systems or just return migrators.

In 1990, the temporary weir structure was again fished from April 16-June 20+. No adult steelhead were captured. Eighteen cutthroat trout were captured, two of these were "first arrivals" (one appeared to be a juvenile), and sixteen had passed through the Auke Creek Smolt weir on a prior occasion. "Time out" for these returns ranged from a few days to a few weeks. In addition, forty-seven Dolly Varden were captured. While many of these were recent releases from the smolt weir, due to a tagging operation of these downstream migrants, it was verified that ten had immigrated Auke Creek for the first time that spring. Some tagged Dollies were at large for three weeks before re-entering Auke Creek.

Further evidence of a steelhead population came when smolt were positively identified at the Auke Creek Weir in 1989. Six were counted outmigrating from May 18-June 1. It is quite likely that the early portion of this migration was mis-identified as cutthroat trout, as well as prior year downstream migrant steelhead smolt.

In 1990, the smolts were watched for earlier, and twenty-three were counted through the weir. It is felt that this represents most, or all of the outmigration for this year.

